



THE KING'S FUND MINIATURE HOSPITAL



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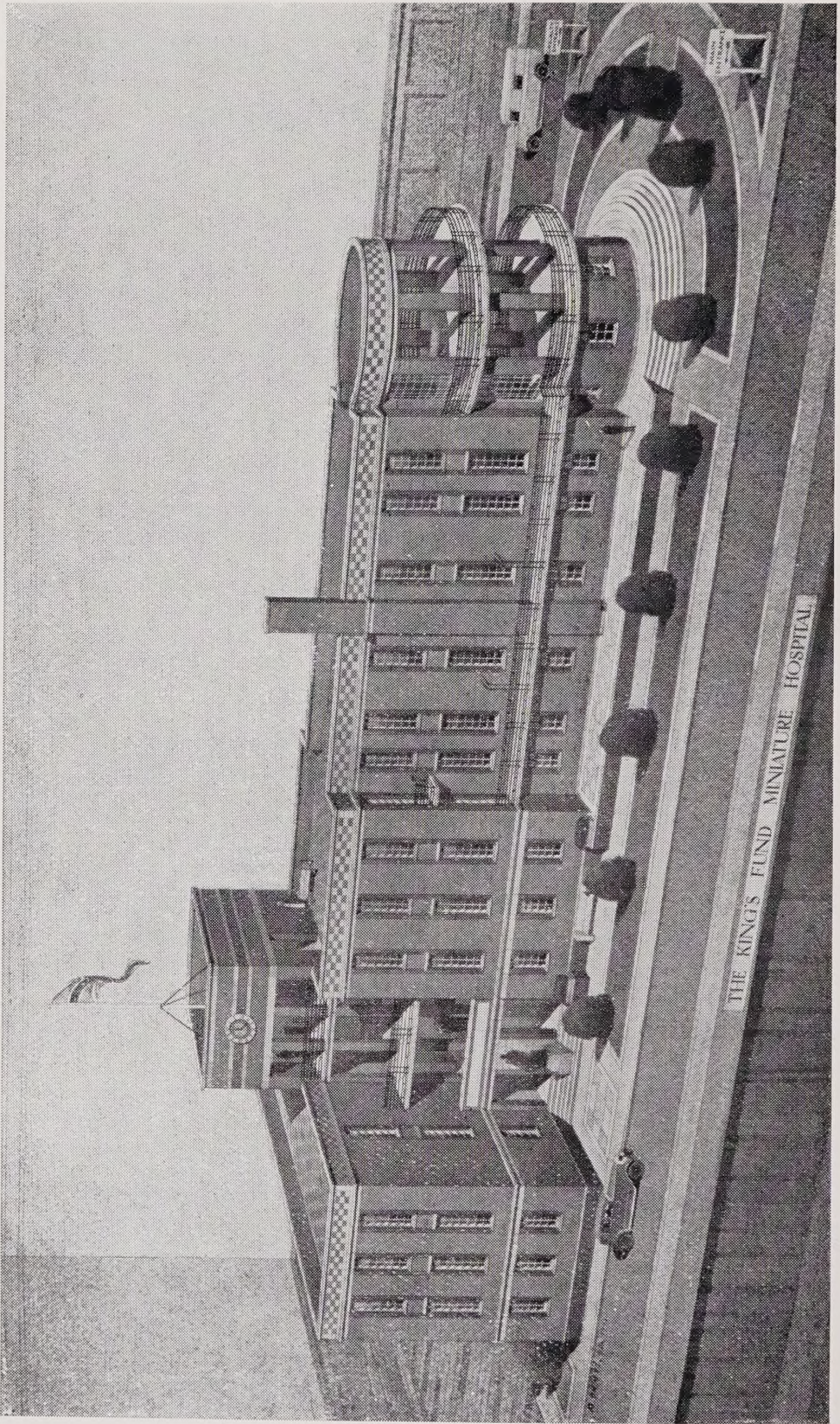
Mr. LIONEL PEARSON, F.R.I.B.A.

Mr. D. A. THOMSON

Secretary to Sub-Committee :

Mr. E. A. H. JAY.

Custodian of Model : Mr. H. J. NICHOLLS.



THE KING'S FUND MINIATURE HOSPITAL. General External View.

Foreword.

KING EDWARD'S HOSPITAL FUND FOR LONDON, whose many activities on behalf of the London Voluntary Hospitals during the thirty-seven years of its existence have done so much to promote their welfare, has long perceived the need of making more widely known the great work which the voluntary hospitals do for the benefit of the community.

It is perhaps not generally appreciated that no less than 147 Hospitals and 56 Convalescent Homes receive grants from the King's Fund, and that a sum of upwards of £300,000 is annually distributed. It should be emphasised that patients in these Institutions are by no means confined to residents in the London district, but are drawn from all parts of the country.

A suggestion was made by Mr. H. Saxe Wyndham, in the autumn of 1929, to the Propaganda Committee of the Fund that a Model of a modern hospital, complete as far as practicable in its smallest details, would be likely to arouse the interest of the public, and so help the work of the King's Fund.

The members of the Propaganda Committee, under the chairmanship of the late Lord Burnham, became interested, and a sub-committee, under the chairmanship of Mr. Wyndham, was accordingly appointed to deal with the proposal. The Royal Institute of British Architects was asked to nominate a firm who should be invited to furnish a design and

plans, and the choice fell upon the late Mr. Percy Adams, F.R.I.B.A., of the firm of Adams, Holden and Pearson. Mr. Adams from the very first showed the greatest interest in the scheme, and readily undertook the costly and laborious task of preparing the plans. Unhappily, he fell ill shortly afterwards, and did not live to see his work completed. His friend and partner, Mr. Lionel Pearson, F.R.I.B.A., however, immediately stepped into his place, and has ever since maintained the same generous interest, his invaluable help greatly lightening our task. For some time we were unable to obtain the necessary funds for the construction of the shell of the Model. This problem was solved when the well-known firm of contractors and builders, Messrs. Humphreys, Ltd., of Knightsbridge, generously undertook the responsibility.

It is difficult, where so many have been concerned, to render appropriate thanks. From Her Majesty the Queen, H.R.H. the Princess Royal, H.R.H. the Duchess of York, Lady Hudson, G.B.E., Mr. Alfred Praga, and many others the Committee received the warmest sympathy and co-operation. Great ladies, great artists, well-known commercial houses, individual business men, the London Press, and many private persons united to produce an object of unique and enduring value. Special thanks are due to Lord Riddell, who bore the expense of printing 10,000 copies of the first edition of this booklet, the proceeds of which have proved to be a valuable contribution to the King's Fund ; and to Sir Harry Hague, whose generous donation of 100 guineas defrayed the cost of the miniature figures.

The Model has been designed and constructed to a scale of one-sixteenth of full-size. It presents, in perfect proportion and detail, a three-dimen-

sional picture showing some of the essential parts of a modern hospital, including wards, operating-theatres, balconies, garden, X-ray apparatus, and a working electric lift, as well as doctors, nurses and patients.

The Model cannot fail to be a source of delight, as well as instruction, to grown-ups and children alike, and will, it is hoped and believed, leave on the minds of those who see it a permanent impression that will make for a more general understanding of the manifold functions of the voluntary hospitals and their importance in the life of every individual, and consequently create a deeper sense of personal responsibility for their maintenance.

Hospital construction is being continually improved, and new ideas constantly introduced. The Model contains many new features, as well as alternative methods and types of design and equipment that have been adopted by different hospitals.

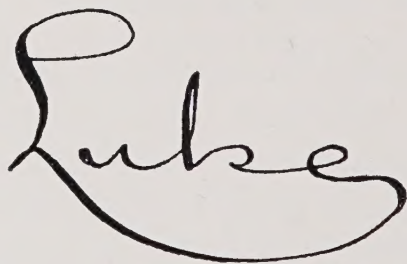
We are deeply sensible of the kindness of H.M. The Queen in graciously presenting two lace handkerchiefs to be used as bedspreads. These, together with similar handkerchiefs kindly given by H.R.H. The Princess Royal and H.R.H. The Duchess of York, are shown in the Adult Ward.

On Monday, November 28, 1932, Her Majesty visited Terminal House, Grosvenor Gardens, while the Model was still under construction, and showed great interest in the work. On January 6, 1933, in the presence of a distinguished company, H.R.H. The Prince of Wales, President of King Edward's Hospital Fund for London, inaugurated the exhibition of the Model. The late Lord Burnham, despite his innumerable activities, found time to interest him-

self actively in the promotion of the scheme, and one of the last public functions he attended was the Opening Ceremony.

It is our hope that the Model may have a long and successful career, and that, both directly and indirectly, its popularity may be the means of advancing the sacred cause of relieving sickness and suffering.

We cannot close without recording our warm appreciation of the untiring efforts and able direction of Mr. H. Saxe Wyndham, to whom the Miniature Hospital owes its inception.

A handwritten signature in cursive script, appearing to read 'Lube'. The signature is written in a dark ink on a light background. The letters are fluidly connected, with a large loop at the end of the word.

Chairman of the Propaganda Committee.



EXTERNAL DETAIL OF MAIN ENTRANCE AND LIFT TOWER.

“ As President of King Edward’s Hospital Fund I am delighted to associate myself with the inauguration of the Miniature Hospital, which, complete to the smallest details, will, I am sure, prove of the greatest public interest..... I feel sure that wherever it is shewn it will not only arouse the greatest interest in the organization of our modern hospitals, but will make people realise what splendid work our hospitals are doing for the benefit of the community.”

HIS ROYAL HIGHNESS
THE PRINCE OF WALES.

January 6, 1933.



H.R.H. THE PRINCE OF WALES INAUGURATING THE EXHIBITION OF THE MODEL.

The Model Described.

IN the days of Florence Nightingale, this country led the world in hospital construction. Since then there has been keen but friendly rivalry among the more advanced countries all over the world, and it must be confessed that sometimes other countries have been more ready to take up new ideas and develop them than we have. The Model has been designed to show that once again this country has realised the importance of adopting new methods in planning and equipment. Many of the leading firms have generously co-operated to produce as nearly as possible an example of an up-to-date hospital, fully equipped for modern needs ; and it is hoped the result proves conclusively that, for skill in workmanship and the satisfactory use of materials, British manufacturers cannot be beaten the world over.*

The Miniature Building.

While the miniature fittings, figures and internal furniture of a model of this nature make the picture which is impressed upon the observer, it is necessary to bear in mind that by far the most important part is the miniature building in which they are housed. This part of the work, besides forming the necessary background, had to provide an efficient protection for a valuable collection of miniature articles, as well as having the quality of permanence.

* The exhibition of the model must not be taken to imply the special recommendation by the King's Fund of any particular types of hospital design, construction, fitting or equipment, or of any individual firm.

To the complex task of constructing this model, the builders brought a wide experience which enabled them to reproduce in tiny but faithful detail a building such as would be used for a hospital of this description. The initial work of testing many types of material lasted over a period of three months. During this time 150 detail drawings were produced, and the selection of materials necessitated the testing of some fifty different substances, including paints, plasters, cements, glues, and ply-woods of every description. The first consideration, which was to ensure easy transport, necessitated the construction in five separate parts, each part a complete unit, and of a size suitable for easy handling. Special secret joints have been constructed to run up certain of the internal walls, thus giving the Model the appearance of a single unit when mounted, and providing a dust proof cover on all sides. The necessity for portability also required the fixing of every object firmly to the floors and walls, so that should any part of the Model be accidentally upset no displacement of furniture or figures would occur.

Its Construction.

The construction occupied a period of ten months, during which the work was supervised as strictly as the largest building contract, and was carried out by a staff of men with the highest skill in craftsmanship. Every window-opening is fitted with an independent wooden frame to take the metal windows. Each door has a rebated wood frame or lining fitted to the opening to which the door is hinged. All floors are constructed with cavities in which the electric wiring is run as in a full-size building. The teak-boarded



floors of the wards and other rooms were laid in the actual wood and are not imitations. This work entailed the cutting of 2,000 feet of these battens.

The internal decoration of the Model, being on such a minute scale, called for much greater skill and attention than in normal building practice. All paintwork has received five coats, and has absorbed approximately 130 lbs. of paint.

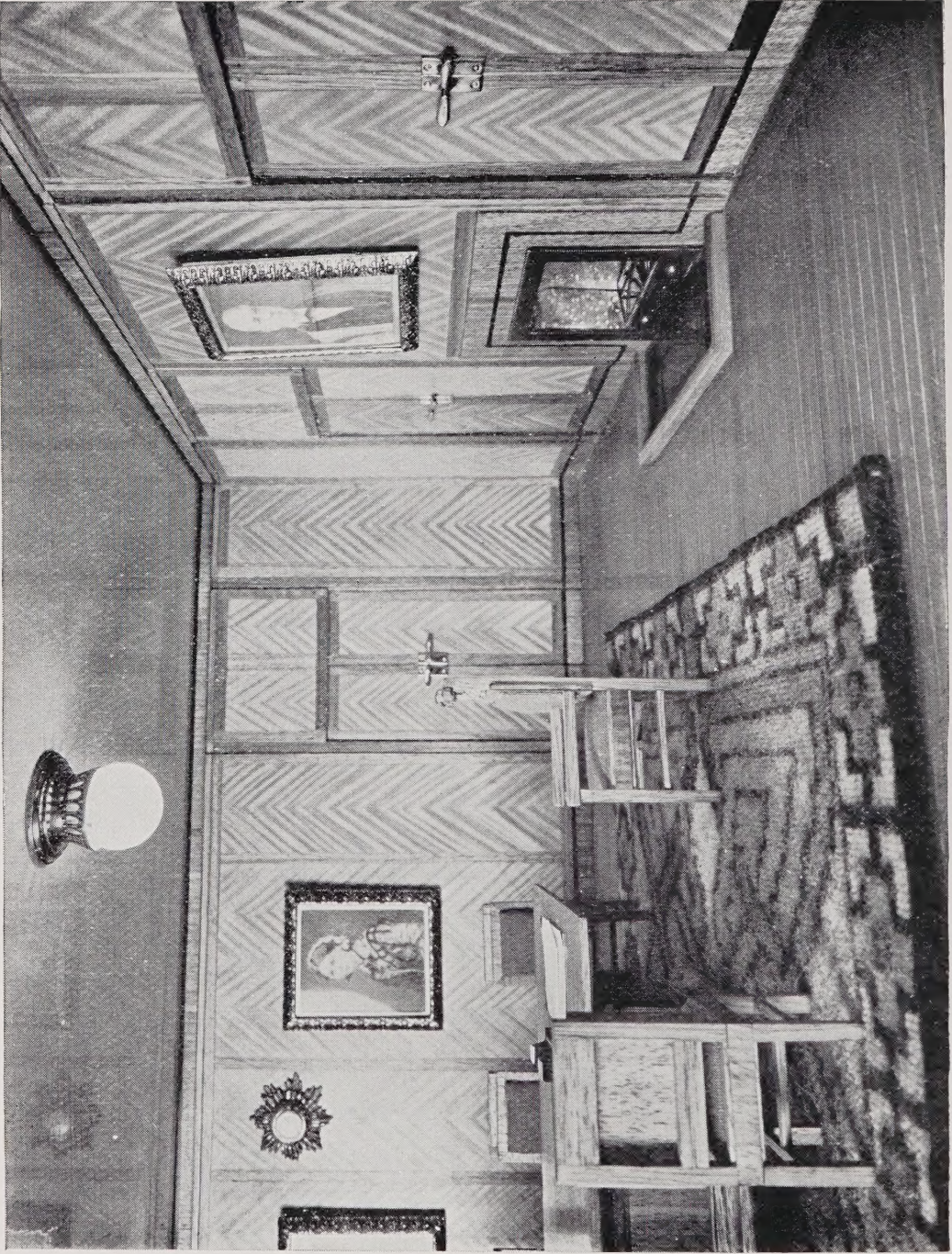
The external brickwork has perhaps received the greatest attention. It will be realised that the use of actual miniature bricks was impossible. A method was evolved, however, after months of experiment, whereby the whole of the exterior has been coated with a brick-like face, on which it has been possible to indicate every brick and stone which would be used in the normal construction of these walls. This work has involved the representation of approximately 1,000,000 separate bricks and 7,000 separate stones.

A Detailed Description.

The exterior represents a simple brick-and-stone building with balconies for the use of patients. The roof is flat, and can be used as a roof-garden in hot weather by the patients and staff, the lift and staircase being taken up to this level. The Tower contains the working parts of the lift and the clock. The flag-staff flies the Union Jack.

A bronze figure, symbolic of Healing, which will stand at the Main Entrance, is now being designed by the well-known sculptor, Mr. C. S. Jagger, R.A.

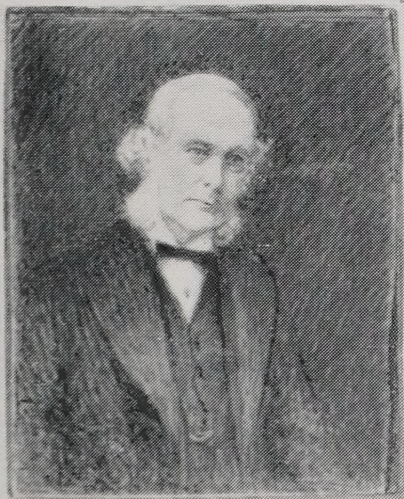
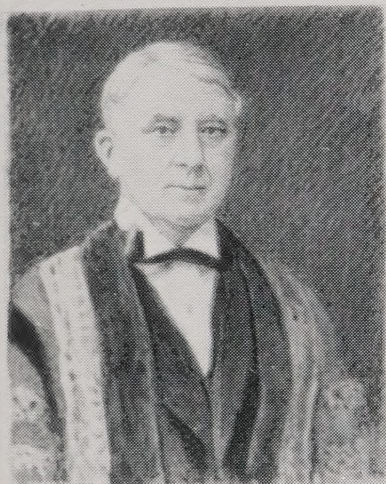
We now come to the interior. It was naturally impracticable in the space at our disposal to show a complete hospital building, but the Model contains typical wards and some of the most important depart-



BOARD ROOM.

LORD MOYNIHAN.

LORD DAWSON OF PENN.



LORD LISTER.

FLORENCE NIGHTINGALE.

PORTRAITS IN BOARD ROOM.

ments. Consequently we must imagine a corridor connecting the top ends of the T with other wards, and with such buildings as the Nurses' Home, Laundry, Out-patients' Department, Laboratories, etc., all of which are necessary parts of a modern hospital.

Staircase and Lift.

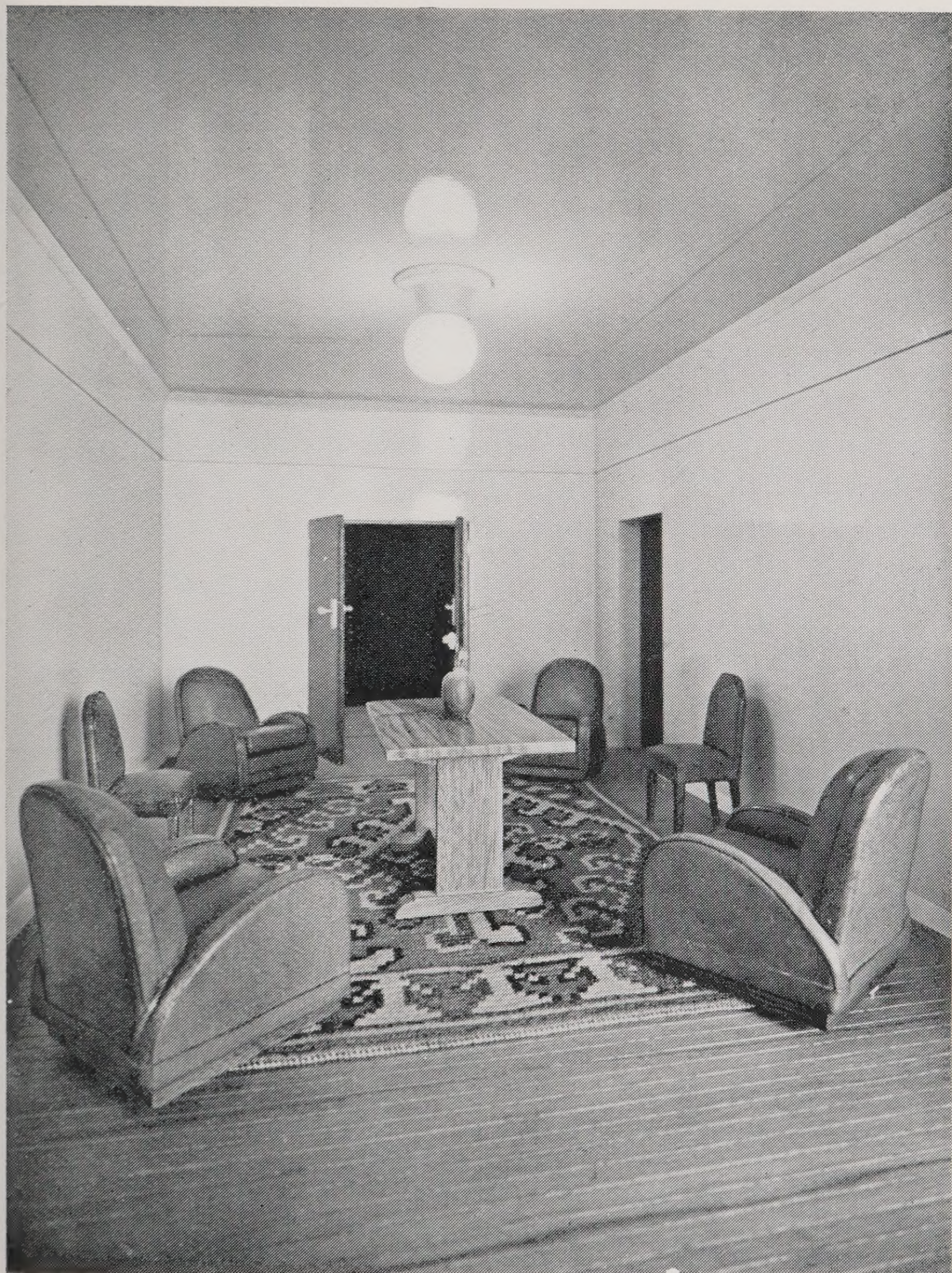
The staircase opens off the hall with a floor of marble, and in the centre is a bed-lift, which is an actual working model. The machine and controller are at the top of the lift-well, actual practice being followed as closely as reduced sizes permit. The lift is, of course, a model of the full automatic type of hospital lift, large enough to accommodate a stretcher and attendants.

The equipment of this marvel of miniature machine-construction is designed to operate on a supply of 6 to 8 volts, the power being obtained from a battery of accumulators.

The main corridors and the landings, staircase, etc., are covered with a material which has the advantage of being easy to clean, quiet and non-slippery.

Board Room.

The Board Room is panelled in sycamore, and the furniture is in walnut, the whole being carried out in Empire woods. The carpets, curtains and chair coverings were specially made by the Royal School of Needlework. The fire is electric, and the floors are of teak, a very hard timber much used in hospital construction. The four miniature portraits of Florence Nightingale, Lord Lister, Lord Dawson of Penn, and Lord Moynihan are by Mr. Alfred Praga, R.B.A., President of the Society of Miniaturists.



VISITORS' WAITING ROOM.

Adjoining the Board Room are the Visitors' Room, Secretary's Office and Matron's Office, which are provided with furniture in different hard woods. This has been designed to avoid unnecessary ornament and facilitate cleaning, and is, therefore specially suitable for a hospital.

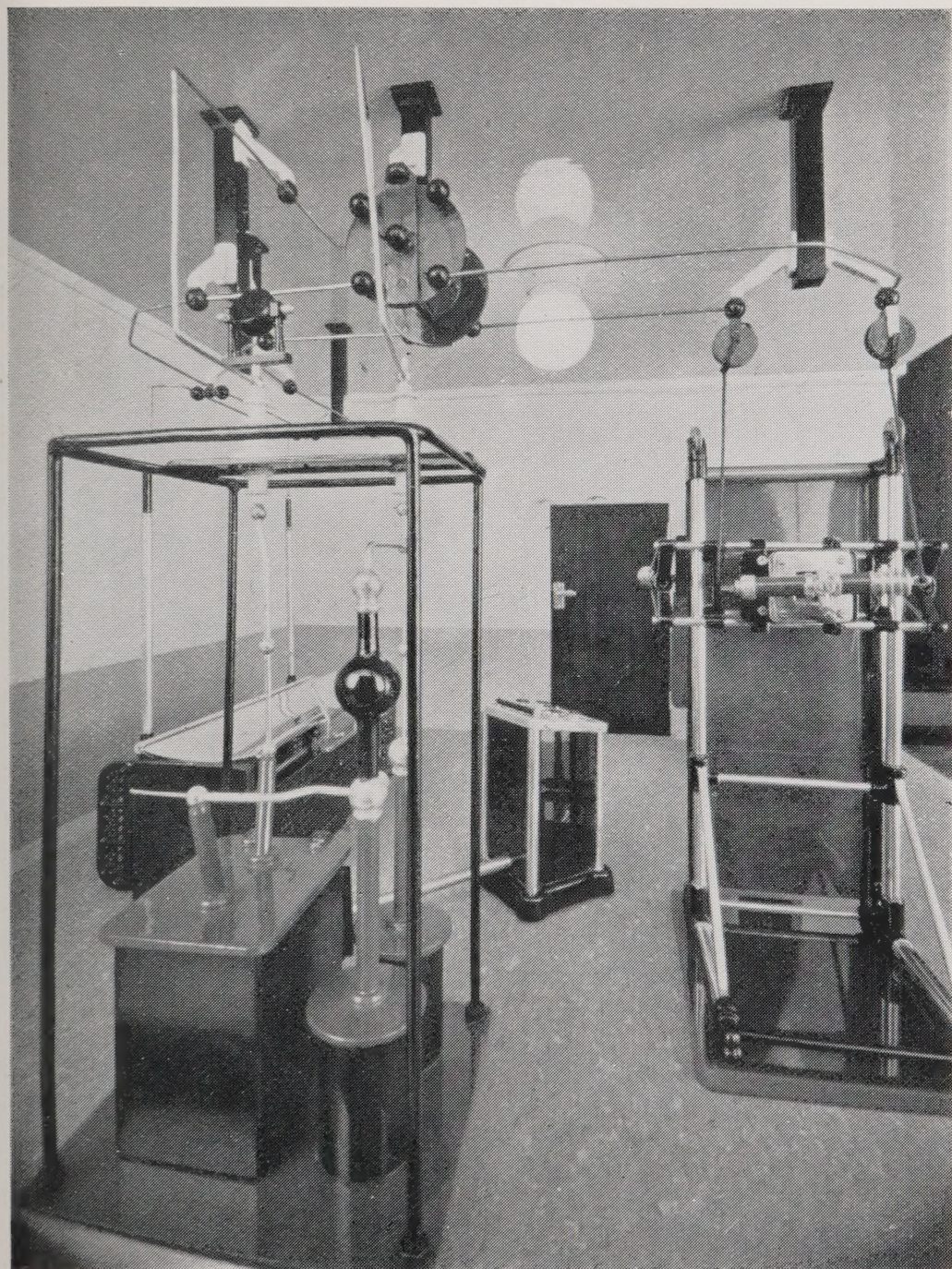
X-Ray Department.

The long arm of the T on the ground floor contains the X-ray Department. This department is of the greatest importance to the modern hospital, and it is essential that it should be placed in a central position, as it is used by all classes of patients at all times of the day and night.

The design of X-ray apparatus is constantly changing to meet the developments in what is a comparatively new science, but English manufacturers are keeping abreast of the times.

The X-ray Department consists of three sections. For the examination of patients, the rays pass through the body of the patient lying on a table or standing in front of a framework. In the right-hand room the rays cast shadows on a screen, and these are examined by direct vision. In the centre room there is another screening apparatus by means of which a patient is actually being examined by the radiologist. Here there is also a table for the taking of photographic records, the films being developed in the Dark Room. The room on the left is for the curative use of the X-rays. There is also a small window of ray-proof glass through which the operator can observe the patient.

The circular room at the end is devoted to remedial exercises and massage, and is provided with swings, bars, etc.



X-RAY (DIAGNOSTIC) ROOM.



AN ADULT WARD.

THE LACE BEDSPREADS ON THE LEFT OF PICTURE WERE GRACIOUSLY PRESENTED BY HER MAJESTY THE QUEEN, H.R.H. THE PRINCESS ROYAL AND H.R.H. THE DUCHESS OF YORK.

Adult Ward.

On the first floor are the Adult Ward and the Operating Theatres. The ward is, of course, the most important part of the hospital, and as the tendency nowadays is to reduce the size of a ward, which used to contain twenty to thirty beds, a twelve-bed ward has been shown. In this the beds are placed parallel to the walls, and are separated by glazed screens. These screens are connected by rods, so that at any time curtains may be drawn and greater privacy obtained for the patient. The purpose of the system of parallel beds is to save the patient from being compelled to face the light ; and the radiator, which is usually placed under the window, is near the patient's feet instead of his head. (The other system is shown in the Children's Ward.) The windows are specially designed for hospital use. They are provided with hoppers for use in cold weather, or can be opened to their full extent in hot weather. The radiators are actual models of the type in use in many hospitals.

The circular Solarium at the end of the ward is designed to obtain the maximum amount of sunlight.

The Children's Ward.

The top floor shows the Children's Ward and the Kitchen. This ward is specially designed to suit the needs of childhood. The tiled walls are decorated with nursery rhymes adapted from the original cartoons by Thomas Derrick : " Dick Whittington," " Ride-a Cock Horse," " Tom, Tom the Piper's Son," " Little Miss Muffet," " Jack and Jill " are among the subjects. The tiles are actual miniature tiles, and in all, including kitchen, etc., 13,000 were specially made for the Model, and have been through the same process of manufacture as a full-sized tile.



THE CHILDREN'S WARD, SHOWING TILED WALLS DECORATED WITH NURSERY RHYMES.

The Operating Theatres.

The Operating Theatres are on the "dual" plan, with a combined sterilising and wash-up room between them ; for the modern theatre is kept as free as possible from fittings.

The patient is brought in from the main corridor to the Anaesthetic Room, and then to the Operating Theatre. The operating table is a model of an actual table.

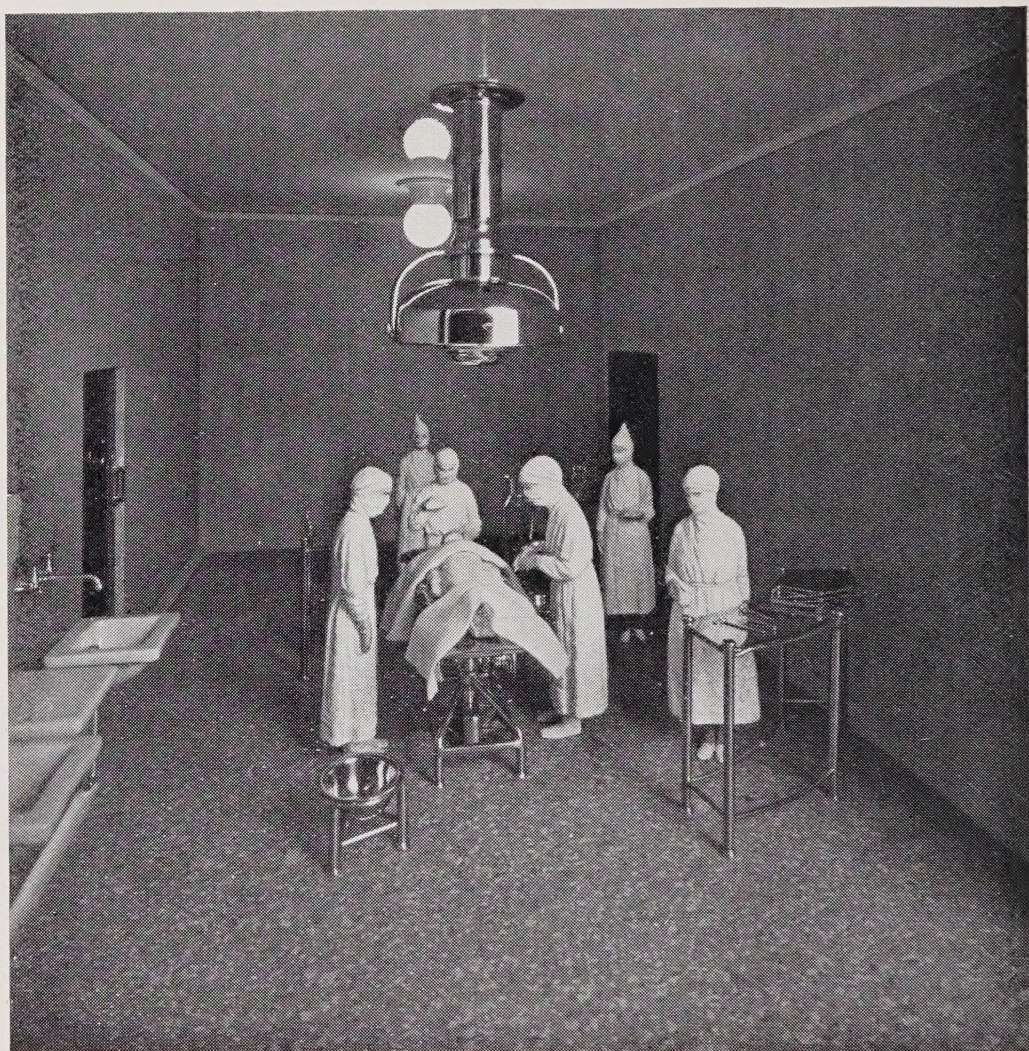
The lighting equipment in the Operating Theatres has been scientifically designed, and is representative of the actual "shadowless" operating-theatre fittings employed in many hospitals.

The receptacles for sterilising the instruments, gloves, etc., are made to represent stainless steel, and are mounted on wall-supports to give a clear floor-space below. They are designed to represent two 12-gallon water-sterilisers, one bowl, and one instrument-steriliser. The floors and walls of the Operating Theatres are covered with a jointless non-absorbent material.

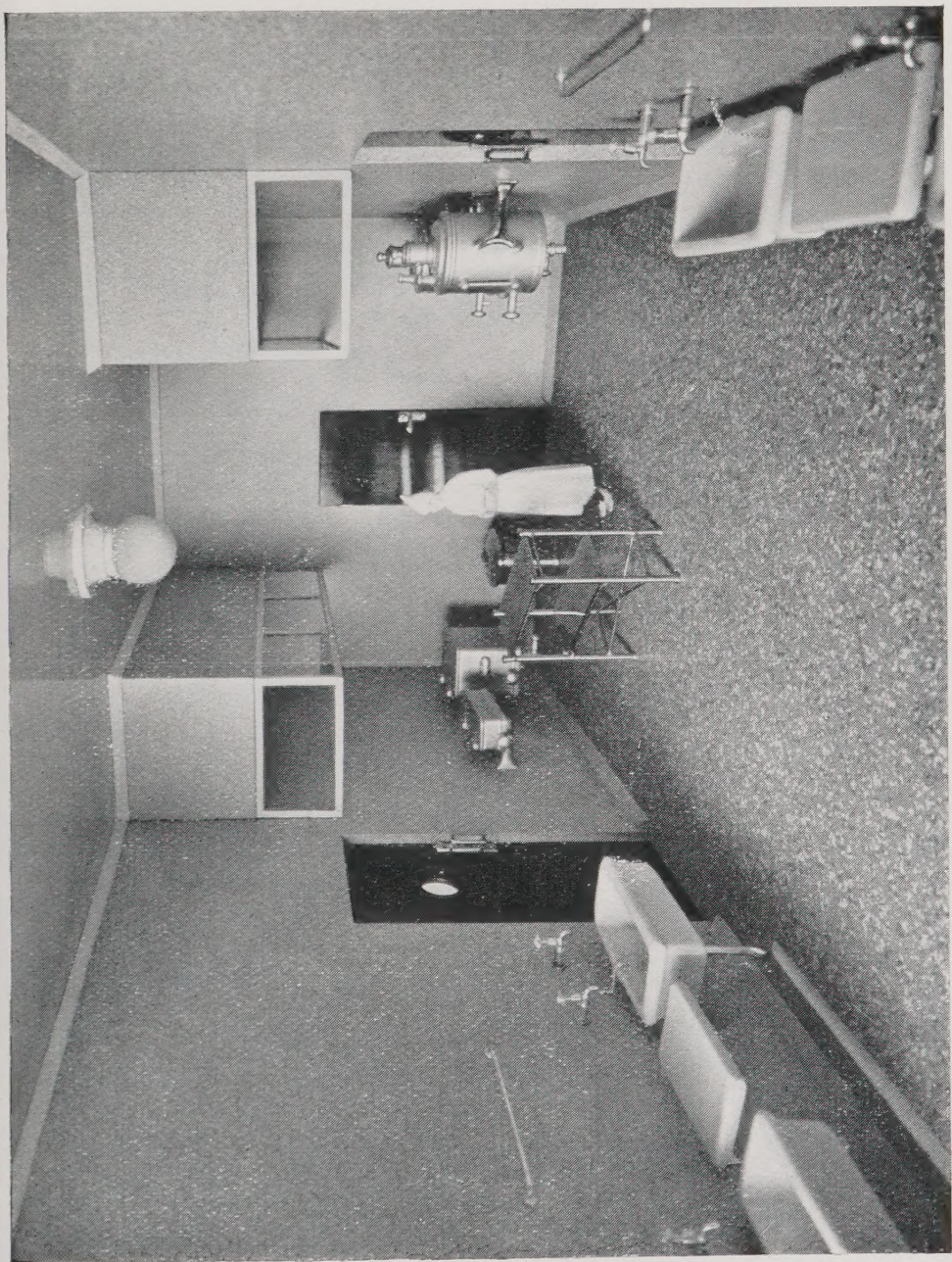
The sanitary fittings in the Bath Rooms, Lavatory, and Sink Room, which open off the ward corridor, include baths, sinks, lavatories, etc., and these are supplied with taps, chains, cisterns and traps, all of which are beautiful examples of workmanship to a small scale. The Surgeons' Lavatory has special chromium-plated elbow-action taps, and the Sink Rooms are provided with white glazed sinks and slabs for scalding bed-pans and scrubbing mackintoshes.

A Modern Kitchen.

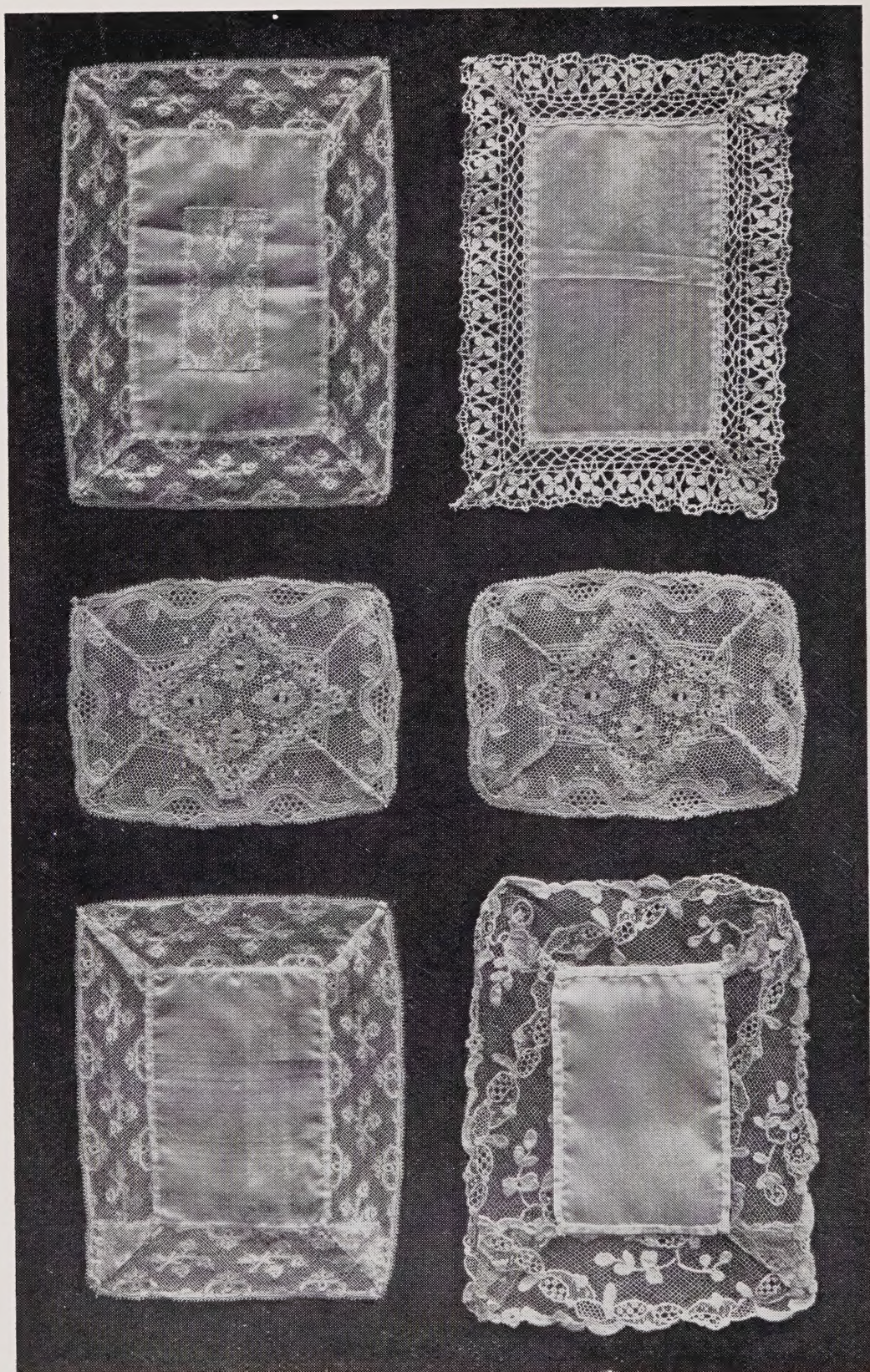
The Kitchen shows a complete equipment for steam, gas or electricity, the apparatus being sufficient to provide for 300 patients and staff. On the extreme



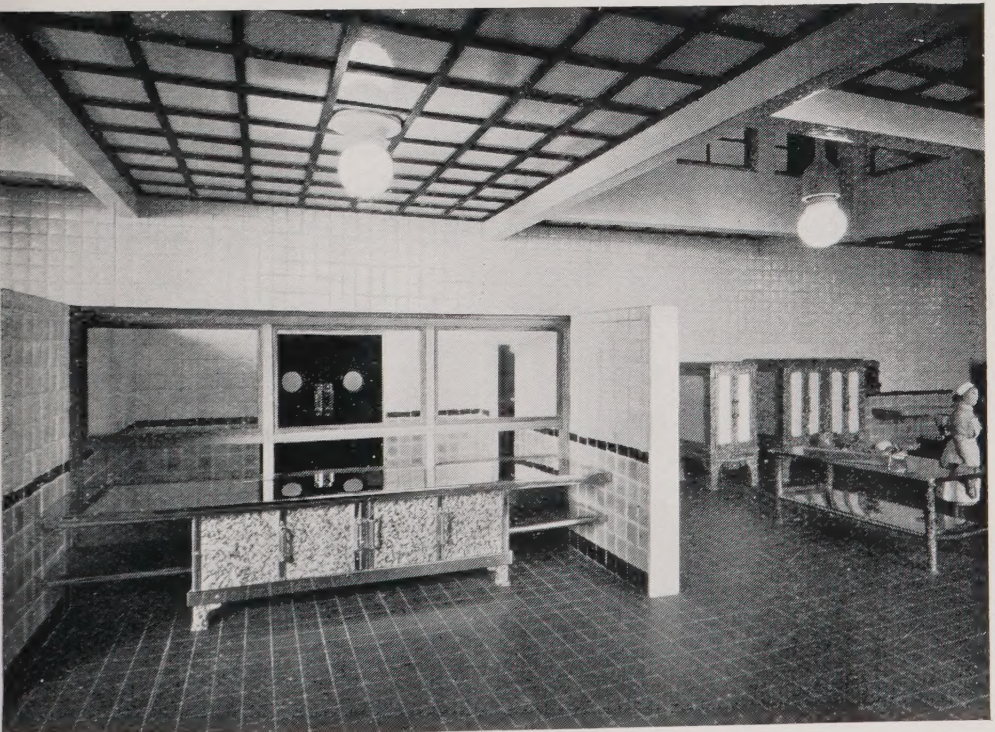
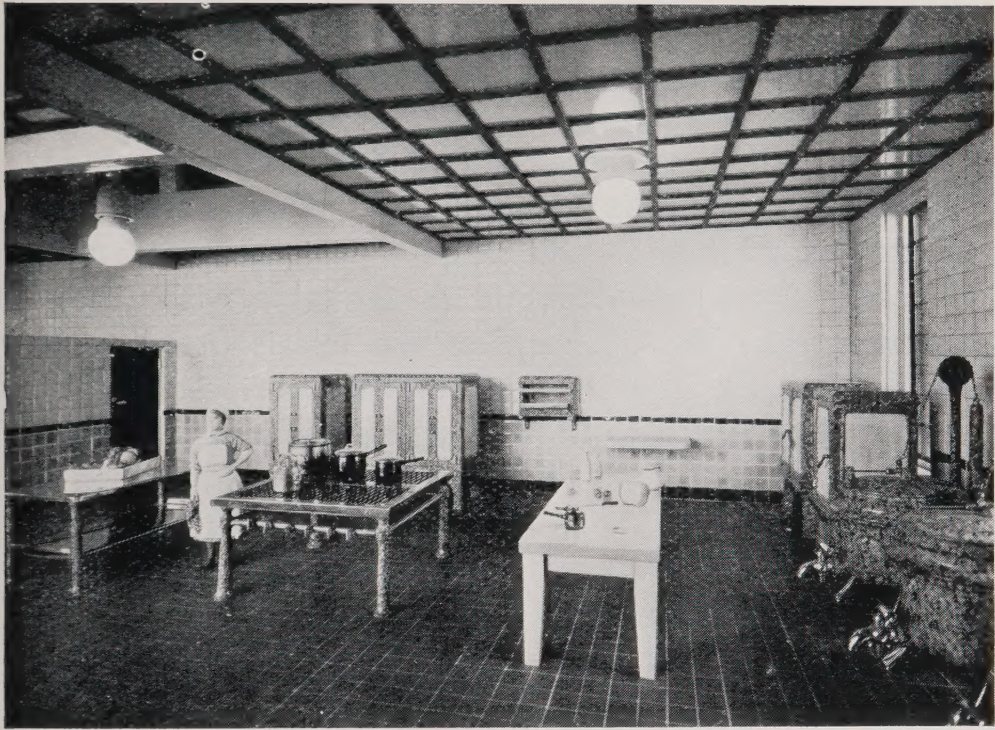
ONE OF THE OPERATING THEATRES, WITH FIGURES OF SURGEON,
ANAESTHETIST AND NURSES.



WASHING AND STERILISING ROOM
SERVING TWO OPERATING THEATRES



HANDKERCHIEFS USED AS BEDSPREADS, GRACIOUSLY PRESENTED BY H.M. THE QUEEN, H.R.H. THE PRINCESS ROYAL, AND H.R.H. THE DUCHESS OF YORK.



THE KITCHEN.

right are the steaming- and boiling-apparatus, one double and one single steamer, three steam-jacketed boiling-pans with draw-off cocks of an easily cleanable pattern. On the back wall are the roasting- and baking-ovens, and grill. In the centre of the Kitchen is a gas-heated hot-plate for boiling and frying. There are two examples of tables, one with a stainless-steel top. There is also a hot-closet and serving-table, with steam-heated top. The Scullery on the left is fitted with glazed earthenware sinks, an electric paring-machine, a pair of pot-washing sinks, and also teak-and-stainless-steel draining-boards. In the Larder is a model of a refrigerator.

Electric Fittings.

The electric wiring of the whole Model is concealed in the floors and ceilings, and the electric-lighting equipment throughout is representative of the most modern practice in hospital lighting.

The Board Room is illuminated by similar fittings to those in the Wards, but the metal-work of these is of real bronze and of special ornamental design and finish. Special "Sunray" lighting fittings are a feature of the Solaria, these having been designed according to the most modern practice.

The Hospital Model.

Architects : Messrs. ADAMS, HOLDEN & PEARSON, LONDON.

Surveyors : Messrs. WIDNELL & TROLLOPE, LONDON.

Builders of the Model : Messrs. HUMPHREYS, Ltd., KNIGHTS-BRIDGE, LONDON.

Firms collaborating in the Construction and Equipment of the Model :

Messrs. General Electric Co., Ltd.	London	Electric lighting, heating and violet-ray equipment.
Messrs. Waygood-Otis, Ltd.	London	Lift
Messrs. Troughton & Young, Ltd.	London	Electrical installation (in collaboration with General Electric Co.)
Messrs. Crittall Mfg. Co., Ltd.	London.	Metal windows and ward screens.
Messrs. John P. White & Sons, Ltd.	Bedford	Doors and Board Room panelling and furniture.
Messrs. Doulton & Co., Ltd.	London	Sanitary fittings.
Messrs. Art Pavements & Decorations, Ltd.	London	Terrazzo and Biancola paving.
Messrs. Manu-Marble Co.	Gloucester	Manu-Marble floors.
Messrs. Korkoid Decorative Floors	Glasgow	"Korkoid" floor covering.
Messrs. W. B. Simpson & Sons, Ltd.	London	Wall tiling and wall panels to Children's Ward.
Messrs. F. Knight & Co., Ltd.	London	Door fittings, handrails, and railings.
Messrs. Merryweather & Sons, Ltd.	London	Fire appliances.
Messrs. National Fire Protection Co.	Richmond	Fire appliances.
Messrs. The Gas, Light & Coke Co.	London	Cookers for Ward Kitchens and Fires for Wards.
Messrs. National Radiator Co., Ltd.	London	Radiators.
Messrs. Liquid Measurements, Ltd.	Willesden	Petrol Pump.
Messrs. Mander Bros., Ltd.	Wolverhampton	Paints and enamels.
Messrs. Schall & Son, Ltd.	London	X-ray equipment.

Messrs. Cox-Cavendish Electrical Co. (1924), Ltd.	London	Diathermy Apparatus, combined Galvanic and Faradic Bristow Table and Radiant Heat Bath.
Messrs. Spencer Heath & George, Ltd.	London	Medical Gymnastic Apparatus.
Messrs. James Slater & Co. (Engineers), Ltd.	London	Sterilising equipment and kitchen fittings.
Messrs. Down Bros., Ltd.	London	Surgical equipment and ward lockers.
Mr. Donald Rose	London	Surgical instruments, instrument cabinets, and ward dressing trolleys.
Messrs. Estler Bros., Ltd.		Steel lockers for patients' clothing.
Messrs. International Re- frigerators Co., Ltd.	London	Refrigerators.
Messrs. Hotlock, Ltd.	London	Electric food trolley.
Messrs. Maple & Co., Ltd.	London	Furniture for wards and rooms (except Board Room).
Messrs. Hoskins & Sewell, Ltd.	Birmingham	Beds and cots.
Messrs. Britannia Tube Co., Ltd.	Birmingham	Tubes for beds and cots.
Messrs. British Castors, Ltd.	London	Castors for beds and cots
Messrs. Midland Spring Co., Ltd.	London	Springs for beds and cots.
Messrs. Eastman & Son	London	Mattresses for beds and cots.
Messrs. Kodak, Ltd.	London	Dark Room equipment.
Messrs. Chappell Piano Co., Ltd.	London	Grand piano.
Messrs. Austin Motor Co., Ltd.	Birmingham	Chassis of motor ambu- lance.
Messrs. Strachans (Acton), Ltd.	London	Bodywork of motor ambulance.
Messrs. F. Sangorski and G. Sutcliffe.	London	Minute Book for Board Room.
Messrs. "Country Life," Ltd.	London	Descriptive Brochure and Photographs.

Our thanks are also due to :

The Royal School of Needlework	..	..	..	Carpets and curtains.
Lady Hudson	..	..	..	Carpets and curtains.
Mr. Alfred Praga	..	..	..	Portraits in Board Room.
Mrs. Power	..	..	..	Bed Linen and Blankets
Miss Wyndham	..	..	..	Coverlets.

